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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/575,376 | 04/11/2006 | Hirotoshi Watanabe | 108731870USWO | 9079 |
| 52835 | 7590 | 02/19/2009 | EXAMINER | |
| HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902 | | | | HANLEY, BRITT D |
| ART UNIT | | PAPER NUMBER | | |
| | | 2889 | | |
| MAIL DATE | | DELIVERY MODE | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/575,376 | WATANABE ET AL. |
| | Examiner | Art Unit |
| | BRITT HANLEY | 2889 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11 April 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 11 April 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>04/11/2006; 07/05/2006</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

[01] Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

[02] Some of the references on the information disclosure statements are duplicated. Accordingly, Examiner has only considered the reference once, and lined through the duplicate.

Specification

[03] The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

[04] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[05] The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

[06] Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant cited Yamada *et al.* (JP2002-299044) in view of Applicant cited Tomiuchi *et al.* (USP 6506506 B1).

[07] Regarding claim 1, Yamada *et al.* disclose an electroluminescent element comprising: a light-emitting layer (30); a color filter layer (82); and a surface substrate (80), wherein the color filter layer and the surface substrate are located on a light extraction side (Figure 1), the color filter layer is present between transparent electrode (42) formed on the light-emitting layer and the surface substrate (Figure 1), the color filter layer comprises light-emitting portions of three primary colors (R, G, B, Figure 1) and light shielding layers (70) formed between each of the light-emitting portions (Figure 1), sides of the light shielding layers are covered with a metal reflective layer (74) in a longitudinal direction of the transparent electrodes (Figure 1), and the metal reflective layer is connected electrically to the transparent electrodes in the longitudinal direction (74 connects to transparent electrode 42, Figure 1). Examiner notes that in paragraph 38, Yamada *et al.* disclose that if the shading wall (70) is made of a reflective material (metal), then there is no need for the reflective layer (74). However, if it is not made of a reflective material, the reflective layer is required. It is obvious that Yamada *et al.* intend for the reflective layer to comprise the reflective metal that could be used for shading wall (70). Yamada *et al.* do not explicitly appear to disclose that the transparent electrodes are in the form of stripes and separated for each color of red (R), green (G) and blue (B).

[08] However, in the same field of EL devices, Tomiuchi *et al.* disclose transparent anode (8) formed in strips and separate for each color (Figure 2).

[09] At the time the invention was made, it would have been obvious to a person having ordinary skill in the art having the references of Yamada *et al.* and Tomiuchi *et al.* to modify the device of Yamada *et al.* to include the upper electrode structure of Tomiuchi *et al.* in order to individually activate the colors.

[10] Regarding claim 2, the combination of Yamada *et al.* and Tomiuchi *et al.* disclose the electroluminescent element according to claim 1, wherein a black layer (74, Yamada *et al.*) is formed on surfaces of the metal reflective layer and the light shielding layers that face the surface substrate (Figure 1, Yamada *et al.*).

[11] Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant cited Yamada *et al.* (JP2002-299044) and Applicant cited Tomiuchi *et al.* (USP 6506506 B1) in view of Minoura *et al.* (USP 6787976 B2).

[12] Regarding claims 3 and 4, the combination of Yamada *et al.* and Tomiuchi *et al.* disclose the limitations of claim 1 above, and that a metal can is used for the reflective layer (paragraph 42, Yamada *et al.*). The combination does not explicitly appear to disclose the actual metal used or its thickness. However, in the same field of EL devices, Minoura *et al.* disclose that a thin film is made of a reflecting material such as aluminum or silver (column 10, lines 57-63). At the time the invention was made, it would have been obvious to a person having ordinary skill in the art having the references of Yamada *et al.*, Tomiuchi *et al.*, and Minoura *et al.* to form the metallic reflecting layer of Yamada *et al.* with aluminum or silver as Minoura *et al.* in order to

better reflect light and increase reflected light toward the viewer. Further, it would have been obvious to a person having ordinary skill in the art to select the thickness based on the material, and that 0.05-1 μm for aluminum and 1-10 μm for silver are reflective to visible light.

[13] Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant cited Yamada *et al.* (JP2002-299044) and Applicant cited Tomiuchi *et al.* (USP 6506506 B1) in view of Applicant cited Fukuda (JP2002-318543).

[14] Regarding claim 5, the combination of Yamada *et al.* and Tomiuchi *et al.* disclose the limitations of claim 1, and further that the color filter layer comprises color conversion layers (paragraph 42, Yamada *et al.*). The combination does not explicitly appear to disclose that the color filter layer also comprises a transparent resin layer. However, in the same field of color filters for use with EL devices, Fukuda discloses a red and green color conversion layer (21, 22) and a transparent resin (23, paragraph 13). At the time the invention was made, it would have been obvious to a person having ordinary skill in the art having the references of Yamada *et al.*, Tomiuchi *et al.*, and Fukuda to include the transparent resin of Fukuda in order to make the blue light emitting portion the same thickness as the green and red portions (paragraph 13).

Conclusion

[15] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Britt Hanley whose telephone number is (571) 270-3042. The examiner can normally be reached on Monday - Thursday, 6:30a-5:00p ET.

[16] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on (571)272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

[17] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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| /Britt Hanley/ Examiner, Art Unit 2889 | /Toan Ton/ Supervisory Patent Examiner Art Unit 2889 |
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